

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 04.069/1a	FOR FURTHER ACTION	See item 4 below
International application No. PCT/EP2004/007231	International filing date (day/month/year) 02 July 2004 (02.07.2004)	Priority date (day/month/year) 04 July 2003 (04.07.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant REHAU AG + CO		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 7 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.
3. This report contains indications relating to the following items:

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input checked="" type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application
4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

	Date of issuance of this report 29 May 2006 (29.05.2006)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Ellen Moyse
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PATENT COOPERATION TREATY

Translation

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

04.069/1a

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/EP2004/007231

International filing date (day/month/year)

02.07.2004

Priority date (day/month/year)

04.07.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant

REHAU AG + CO

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/007231

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language
_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. II

Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date in the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2004/007231

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	<u>2, 3, 8-10, 12-28</u>	YES
	Claims	<u>1, 4-7, 11</u>	NO
Inventive step (IS)	Claims	<u>2</u>	YES
	Claims	<u>1, 3-28</u>	NO
Industrial applicability (IA)	Claims	<u>1-28</u>	YES
	Claims	<u></u>	NO

2. Citations and explanations:

Reference is made to the following documents:

D1: EP-A-0 795 712 (PT POLY TEC GMBH) 17 September
1997 (1997-09-17)

D2: DE 9 308 441 U (PT POLY TEC GMBH) 16.09.1993

The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 1 is not novel within the meaning of PCT Article 33(2).

Document D1 discloses (the references between parentheses refer to this document):

a connection device for an auxiliary pipe in combination with a transverse opening (2) as is found with the bored-through wall of a main pipe (1), of a shaft or the like, and the diameter of which can vary considerably, with the following features:

a) a hollow-plug-shaped, in part relatively soft elastomer insert (10) comprises a flexible support collar (12) and a sealing wall region (11) with a tapering inner face (14) and with an outer face (13) which is generally adapted to the transverse opening (2);

b) a relatively harder connection neck (20) comprises an engagement end (21) with a tapering outer face (26) for

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

interaction with the inner face of the elastomer insert and a sleeve end (22) for interaction with the auxiliary pipe;

c) the taper of the inner face (14) of the elastomer insert and the taper of the outer face of the connection neck run in the insertion direction of the parts (10, 20) in which these are pushed into the transverse opening or into one another;

d) the sealing wall region with the tapering inner face is provided with locking ring zones (46) which are inclined in the insertion direction and towards the inside of the cavity of the elastomer insert, and

e) the tapering outer face of the engagement end is likewise provided with locking ring zones which, seen from the engagement end, are inclined outwards counter to the insertion direction;

f) during fitting of the elastomer insert in the transverse opening and subsequent assembly of the connection neck, the locking ring zones engage in one another in a ratchet-like manner and engage in annular grooves (46) and, by further displacement of the connection neck in the insertion direction, the elastomer insert is stretched stepwise and pressed more firmly against the transverse opening.

Dependent claims 3-28 do not contain any features which, in combination with the features of any claim to which they refer, meet the PCT requirements for novelty and inventive step.

The feature combination contained in dependent claim 2 is neither known from nor suggested by the available prior

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

art, for the following reasons:

novelty:

the locking ring zones disclosed in document D1 show no
toothings with a sawtooth-shaped cross section.

inventive step:

although toothings with a sawtooth-shaped cross section
are generally known from the prior art (see D2), it is
not obvious for a person skilled in the art to apply this
kind of toothings in a connection device as described in
claim 1.